

AMENDMENTS TO THE CLAIMS

(1-4) (canceled)

1 (5) (currently amended): ~~The interrupt control device according to Claim 3, An~~
2 ~~interrupt control device for issuing interrupts to a central processing unit,~~
3 ~~comprising:~~

4 ~~an object acquiring unit for acquiring data for use by said central~~
5 ~~processing unit:~~

6 ~~an interrupt issuing unit for issuing an interrupt to said central processing~~
7 ~~unit before said object acquiring unit acquires said data, after a~~
8 ~~predetermined setup period elapses from when a data generation device~~
9 ~~generating said data starts to generate said data, wherein said data~~
10 ~~generation device generates a plurality of data segments, wherein said~~
11 ~~object acquiring unit sequentially acquires said plurality of data segments~~
12 ~~for use by said central processing unit, and wherein said interrupt issuing~~
13 ~~unit issues an interrupt to said central processing unit before said object~~
14 ~~acquiring unit acquires each of said plurality of data segments, each said~~
15 ~~interrupt indicating that the respective one of said plurality of data~~
16 ~~segments has become available ; and~~

17
18 ~~a use delay unit for delaying use of said data by said central processing~~
19 ~~unit until said object acquiring unit acquires said data if said central~~
20 ~~processing unit which has received said interrupt requests use of said data~~
21 ~~before said object acquiring unit acquires said data.~~

22 ~~a time difference measuring unit for measuring a time difference between~~
23 ~~when said object acquiring unit acquires said data and when said central~~

24 processing unit which has received said interrupt requests use of said data,
25 wherein said time difference measuring unit measures, for each of said
26 plurality of data segments, the a time difference between when said object
27 acquiring unit acquires said data segment and when said central
28 processing unit which has received said interrupt requests the use of said
29 data segment; and

30 a setup period change unit for changing said predetermined setup period
31 according to said time difference, wherein said setup period change unit
32 changes said setup period according to the time differences measured by
33 said time difference measuring unit.

1 (6) (currently amended): The interrupt control device according to Claim 5,
2 wherein said setup period change unit changes said setup period
3 according to the an average of the time differences measured by said time
4 difference measuring unit.

1 (7) (currently amended): The interrupt control device according to Claim 6,
2 wherein said setup period change unit changes said setup period to make
3 said average a predetermined small value, said predetermined small value
4 being small compared to an average time between an interrupt being
5 issued and said central processing unit which has received said interrupt
6 requesting the use of said data segment .

1 (8) (previously amended): The interrupt control device according to Claim 5,
2 wherein said setup period change unit changes said setup period to cause
3 an average value of a distribution of said time differences measured by
4 said time difference measuring unit to become substantially zero.

1 (9) (previously amended): The interrupt control device according to Claim 8,
2 wherein said setup period change unit changes said setup period to make
3 a predetermined percentage of said time differences less than or equal to a
4 predetermined value, wherein said predetermined value is approximately
5 zero.

(10-18) (canceled):

1 (19) (new): An information processing device comprising a central processing
2 unit and an interrupt control device that issues an interrupt to said central
3 processing unit, wherein said interrupt control device comprises:

4 an object acquiring unit for acquiring data for use by said central
5 processing unit;

6 an interrupt issuing unit for issuing an interrupt to said central processing
7 unit before said object acquiring unit acquires said data, after a
8 predetermined setup period elapses from when a data generation device
9 generating said data starts to generate said data, wherein said data
10 generation device generates a plurality of data segments, wherein said
11 object acquiring unit sequentially acquires said plurality of data segments
12 for use by said central processing unit, and wherein said interrupt issuing
13 unit issues an interrupt to said central processing unit before said object
14 acquiring unit acquires each of said plurality of data segments, each said

15 interrupt indicating that the respective one of said plurality of data
16 segments has become available

17
18 a use delay unit for delaying use of said data by said central processing
19 unit until said object acquiring unit acquires said data if said central
20 processing unit which has received said interrupt requests use of said data
21 before said object acquiring unit acquires said data.

22 a time difference measuring unit for measuring a time difference between
23 when said object acquiring unit acquires said data and when said central
24 processing unit which has received said interrupt requests use of said data,
25 wherein said time difference measuring unit measures, for each of
26 said plurality of data segments, a time difference between when said object
27 acquiring unit acquires said data segment and when said central
28 processing unit which has received said interrupt requests use of said data
29 segment; and

30 a setup period change unit for changing said predetermined setup period
31 according to said time difference, wherein said setup period change unit
32 changes said setup period according to the time differences measured by
33 said time difference measuring unit.

1 (20) (new): The information processing device according to Claim 19, wherein
2 said setup period change unit changes said setup period according to an
3 average of the time differences measured by said time difference
4 measuring unit.

1 (21) (new): The information processing device according to Claim 20, wherein
2 said setup period change unit changes said setup period to make said
3 average a predetermined small value, said predetermined small value
4 being small compared to an average time between an interrupt being
5 issued and said central processing unit which has received said interrupt
6 requesting use of said data segment .

1 (22) (new): The information processing device according to Claim 19, wherein
2 said setup period change unit changes said setup period to cause an
3 average value of a distribution of said time differences measured by said
4 time difference measuring unit to become substantially zero.

1 (23) (new): The information processing device according to Claim 22, wherein
2 said setup period change unit changes said setup period to make a
3 predetermined percentage of said time differences less than or equal to a
4 predetermined value, wherein said predetermined value is approximately
5 zero.

1 (24) (new): A method comprising:
2 :generating a plurality of data segments within a data generation device;
3 sequentially acquiring said plurality data segments within an object
4 acquiring unit for use within a central processing unit;
5 issuing an interrupt for each of said plurality of data segments from an
6 interrupt issuing unit within an interrupt control device to a central

7 processing unit after a predetermined setup period elapses from when said
8 data generation device starts to generate said plurality of data segments,
9 and before said object acquiring unit acquires each of said plurality of data
10 segments; wherein each said interrupt indicates that one of said data
11 segments has become available;

12 delaying use of said data by said central processing unit until said object
13 acquiring unit acquires said data if said central processing unit, having
14 received said interrupt, requests use of said data before said object
15 acquiring unit acquires said data;

16 measuring a time difference between when said object acquiring unit
17 acquires said data and when said central processing unit, having received
18 said interrupt requests use of said data, wherein, for each of said plurality
19 of data segments, a time difference is measured between when said object
20 acquiring unit acquires said data segment and when said central
21 processing unit which has received said interrupt requests use of said data
22 segment; and

23 changing said predetermined setup period according to said time
24 difference, wherein said setup period is changed according to the time
25 differences measured between when said object acquiring unit acquires
26 said data segment and when said central processing unit which has
27 received said interrupt requests use of said data segment.

1 (25) (new): The method according to Claim 24, wherein said setup period is
2 changed according to an average of the time differences measured by said
3 time difference measuring unit.

1 (26) (new): The method according to Claim 25, wherein said setup period is
2 changed to make said average a predetermined small value, said
3 predetermined small value being small compared to an average time
4 between an interrupt being issued and said central processing unit, having
5 received said interrupt, requesting use of said data segment .

1 (27) (new): The method according to Claim 24, wherein said setup period is
2 changed to cause an average value of a distribution of said time
3 differences measured by said time difference measuring unit to become
4 substantially zero.

1 (28) (new): The method according to Claim 27, wherein said setup period is
2 changed to make a predetermined percentage of said time differences less
3 than or equal to a predetermined value, wherein said predetermined value
4 is approximately zero.